

### **REMARKS**

In response to the Office Action mailed September 21, 2007, Applicant provides the following remarks. Claims 1, 9-10 and 13-15 have been amended without adding new matter, and claim 12 has been canceled. Claims 1-11 and 13-20 remain in the application. In view of the amendments above and the remarks below, Applicant respectfully requests reconsideration of pending claims 1-11 and 13-20.

By way of this response, Applicant has made a diligent effort to place all claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

### **Claim Rejections - 35 U.S.C. § 103**

Claims 1-13 and 15-20 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over published PCT Application No. WO 01/06771 to Johnson in view of U.S. Patent No. 6,137,546 to Shintani. Applicant respectfully traverses these rejection as the applied combination fails to teach each limitation as recited in the claims. For example, claim 1 recites in part:

- selecting a first input of a plurality of inputs where a plurality of signals are received on the first input;
- selecting a first single modulation scheme of a plurality modulation schemes on the first input and selecting a first signal modulated in accordance with the first signal modulation scheme of the plurality of signals received on the first input ...
- not performing a full auto-program such that the auto-program is limited to the first signal of the plurality of signals received on the first input.

Johnson and Shintani both fail to teach at least the selection of one signal of a plurality of signals, selecting a single modulation scheme of a plurality of modulation schemes on the first input and limiting an auto-program to the single selected signal. Therefore, at least claim 1 is patentable over the applied combination.

More specifically, the Johnson describes receiving a single signal on an input or receiving multiple signals on an input. However, Johnson does not teach or suggest

selecting one signal of a plurality of signals on a single input. Instead, Johnson describes selecting an input and performing a channel mapping of all of the signals received on the input. Johnson does not suggest selecting a single signal of a plurality of signals received on a single input of a plurality of inputs. Further, Johnson does not teach or suggest selecting a single modulation scheme of a plurality of modulation schemes.

The office action in response to Applicants prior arguments states that “Johnson is relied upon to teach the *selection* step” (office action, pg. 2). Applicants respectfully submit, however, that Johnson does not teach or suggest at least selecting a single signal of a plurality of signals on a single input of a plurality of inputs. Instead, Johnson performs “the channel search routine ... to detect channels only from the currently selected signal input...” (Johnson et al., pgs. 5-6, emphasis added). Johnson further recites that “a channel search is started on the channels characteristic of the signal input” (Johnson et al., pg. 7, emphasis added). Therefore, Johnson makes it clear that the channel search is restricted to an input, and does not teach or suggest selecting a single signal of a plurality of signals of the selected input.

Further, because Johnson performs a channel scan of all signals on an input Johnson does not teach or suggest selecting one modulation scheme of a plurality of modulation schemes received on the one input. Specifically, Johnson states “the channel search routine tries to detect channels only from the currently selected signal input of the signal inputs 16, 26, 28, and 30” (Johnson, pg. 5, line 31 – pg. 6, line 1, emphasis added). Johnson further continues to state that “channel list ... includes a label ... which relates the detected channel to the particular signal input being scanned” (Johnson, pg. 6, lines 8-10, emphasis added). Therefore, Johnson does not teach or suggest selecting a signal of a plurality of signals and also does not teach selecting a modulation scheme of a plurality of modulation schemes.

The office action in attempts to support the rejection and counter Applicant’s prior arguments references page 6, lines 12-21. However, page 6, lines 12-21 does not describe that sources can be selected support Applicant’s assertions in that Johnson selects one input and performs a channel scan of the input and does not limiting the scan to one signal of a plurality of signals. Specifically, the portion cited states:

In order to further reduce the time necessary to perform channel detection, the various signal inputs 16, 26, 28, and 30 may accept only certain signal sources. For example, signal input 16 may only accept DBS/Set-top box type television signals and thus only those channels that are typical of DBS/Set-top box signals. Signal inputs 28 and 30 may accept only terrestrial or off-air television signals (VHF/UHF) that only carry characteristics channels, while signal input 26 may accept only cable television signals which carry only a certain range of channels.

Therefore, Johnson does not teach or suggest at least selecting a signal of a plurality of signals.

Further, Johnson does not describe selecting a modulation scheme of a plurality of modulation schemes on the selected input as recited in claim 1. The office action suggests that “Johnson discloses that data from multiple sources may be received over a first input and the sources received over the input may be selected to be only certain signal sources” citing page 6, lines 12-21. Again, this portion of Johnson supports Applicants arguments. Selecting signal sources does not describe selecting a single modulation scheme. Alternatively, by restricting the sources on one modulation scheme might be received on the input, and thus would not read on claim 1 which requires that multiple modulation schemes be received on an input; or the selected sources may supply signals with multiple modulation schemes to that one input and all of the received modulation schemes from the selected sources for that input would be scanned according to Johnson.

The office action further suggests that “Shintani is relied upon for the *scanning* step” (office action, page 2). However, Shintani selects inputs, and does not select a signal of a plurality of signals on a single input. Further, Shintani also does not teach selecting one signal of a plurality of signals received on a first input or selecting one modulation scheme of a plurality of modulation schemes of the plurality of signals received on the first input. Furthermore, Shintani performs a mapping based on an input, and does not limit the channel mapping to a single input or a single signal or a single modulation scheme. For example, Shintani describes that “the television receiver 50 is first autoprogrammed ... for the NTSC channels only [of a first input 12]. Next, the receiver is autoprogrammed for DTV signals [of a second input 13] and ...

autoprogramming is repeated for mapping additional DTV channels with the antenna located at different positions” (Shintani, col. 4, lines 24-30). Therefore, Shintani also does not teach or suggest selecting a single signal of a plurality of signals received on the selected input, and further does not teach selecting a single input of a plurality of inputs as Shintani performs a mapping of all the inputs. Still further, Shintani does not teach or suggest selecting a single modulation scheme of a plurality of modulation schemes, or limiting an auto-program to the single signal and the single modulation scheme. Instead, Shintani teaches away from limiting the mapping and intends to map both inputs and does not limit the mapping to a single input, or a single signal on a single input, or a single modulation scheme.

Even if Shintani is interpreted to describe scanning a first modulation scheme on a first input to reduce auto program time as suggested in the office action (office action, pg. 3), the improved performance achieved by Shintani is not the scanning of a single modulation scheme. Instead, the improved performance is only achieved in relation to performing mapping of multiple inputs with different modulation schemes. Thus, one skilled in the art would not reference Shintani in limiting a channel mapping to a single modulation scheme as the benefit of Shintani is achieved in relation to performing scans on multiple inputs and multiple modulation schemes. Thus, Applicant respectfully submits that one skilled in the art would not reference Shintani in limiting a channel mapping by selecting a single modulation scheme as Shintani teaches away from limiting a mapping to a single modulation scheme and instead is directed to performing mapping of two or more modulation schemes from two or more inputs.

Still further, the Johnson patent does not teach limiting the auto-program to the selected one signal of the plurality of signals on the first input as provided in claim 1. Similarly, the Shintani patent does not teach or suggest, and instead teaches away from limiting the auto-program to a single signal on a selected input as it is the intended purpose of the Shintani patent to perform a channel mapping on both input as well as all signals, if one assumes *arguendo* that multiple signals are received, of each input. Therefore, the Johnson and Shintani references and their combination do not teach at

least limiting the auto-program as recited in claim 1, and thus, claim is patentable over the applied combination.

Therefore, Applicant respectfully submits that the applied combination of Johnson and Shintani fails to teach each limitation as recited in amended claim 1. Thus, Applicants respectfully submit that amended claim 1 is patentable over the applied combination.

Claim 9 is also patentable over the applied combination of Johnson and Shintani. Specifically, the combination fails to teach or suggest at least the “selecting a first input of a plurality of inputs where a plurality of signals are received on the first input ... limiting the channel map to the first signal of the plurality of signals received on the first input and not performing a full auto-program” as recited in claim 9. As demonstrated above, both Johnson and Shintani perform channel scans or mapping for an input. Neither suggests selecting a single signal of a plurality of signals received on a selected input, or selecting a single modulation scheme of a plurality of modulation schemes and limiting the channel scan or mapping to the selected single signal.

Specifically, Johnson performs “the channel search routine ... to detect channels only from the currently selected signal input...” (Johnson et al., pgs. 5-6, emphasis added). Shintani similarly states that “the television receiver 50 is first autoprogrammed ... for the NTSC channels only [of a first input 12]. Next, the receiver is autoprogrammed for DTV signals [of a second input 13]” (Shintani et al., col. 4, lines 24-27). Therefore, both are directed to performing channel scans or mappings based on inputs. Neither Johnson nor Shintani suggest limiting the auto-programming to a single selected signal of a plurality of selected signals received on a selected input of a plurality of inputs. Thus, claim 9 is also patentable over the applied combination.

Applicant further respectfully submits that claim 17 is also patentable over the applied combination of Johnson and Shintani. As demonstrated above, both the Johnson and Shintani references fail to teach or suggest at least selecting one signal of a plurality of signals received on one input and “limiting the channel mapping to the first signal and

not completing a full channel mapping of the other signals received through the plurality of inputs” as recited in claim 17. Again, the Johnson and Shintani patents perform scans or mapping of an input and all signals of the input. Even assuming, *arguendo*, that Johnson allows an input to be limited to receiving a single signal, Johnson would not be receiving a plurality of signals as recited in claim 17, and further would not perform the selection of one of the plurality of signals because only a single signal would be received. Shintani again also performs mapping in accordance with inputs, and does not teach or suggest selecting one signal of multiple signals on an input and limiting the mapping to the selected signal.

The office action again relies on the assertion that “Johnson discloses that data from multiple sources may be received over a first input, and that the sources received over the input may be selected to be only certain signal sources” citing page 6, lines 12-21). However, claim 17 specifically recite “the selecting device selects a first signal from a plurality of signals from one of the plurality of inputs.” Alternatively, Johnson requires all signals of an input to be scanned. If the input is limited to a single signal, then it cannot read on the claim. Further according to Johnson, if multiple signals are received on an input then all of the signals are scanned. Johnson does not teach or suggest selecting one signal of multiple signals.

Similarly as demonstrated above, Shintani performs mapping on inputs and does not teach “the selecting device selects a first signal from a plurality of signals from one of the plurality of inputs” as recited in claim 17. Therefore, the applied combination of Johnson and Shintani fails to teach each limitation of claim 17 and thus claim 17 is patentable over the applied combination.

Further, Applicants submit that one skilled in the art would not combine Shintani with Johnson. Specifically, both are directed toward the scanning or mapping of inputs. Therefore, there is no apparent benefit in combining the references. Additionally, the performance benefit achieved by Shintani is through the mapping of two different inputs. The office action asserts that Johnson limits the scan to a single input, and thus, to achieve the benefit of Shintani would have to perform mapping of two inputs. Therefore,

one skilled in the art would not combine the references as this would destroy the purpose of Johnson as indicated by the office action.

Applicants do not confuse the selecting and the scanning. The Shintani reference describes mapping based on inputs, similar to the Johnson patent and thus would provide no reason to combine, and the performance benefit achieved through Shintani is a result of performing mapping of two inputs. Again, the office action asserts that Johnson limits the channel scan to a single input, thus it would defeat the purpose at least of scanning a single input because Johnson would need to be altered to scan two or more inputs to achieve the benefit described in Shintani. Thus, one skilled in the art would not combine the references.

Claims 2-8 depend from claim 1, claims 10-16 depend from claim 9 and claims 18-20 depend from claim 17. Therefore, claims 2-8, 10-16 and 18-20 are patentable due at least to their dependency on claims 1, 9 and 17, respectively.

2. Further, claim 14 stands rejected under 35 U.S.C. § 103(a), as being unpatentable over Johnson in view of Shintani and further in view of U.S. Patent No. 6,775,843 to McDermott.

Claim 14 depends from claim 9 and is patentable for the same reasons as claim 9. The McDermott's disclosure relied on in this rejection is directed toward channel mapping of a virtual channel. The McDermott disclosure like Johnson and Shintani also fails to disclose or suggest selecting a signal of a plurality of signals to evaluate ... [and] limiting the channel map to the signal and not performing a full auto map" making claim 14 patentable over any combination of Johnson, Shintani and McDermott.

**CONCLUSION**

Applicant respectfully submits that the above amendments remarks demonstrate that the pending claims are in a condition for allowance and a Notice of Allowance is respectfully requested.

Respectfully submitted,

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